

WHAT IS CLAIMED IS:

1. A distal protection device comprising a catheter, a flexible member movable from a first retracted position to a second looped position extending laterally with respect to the catheter such that a first loop opening extends substantially in a direction of blood flow as the first loop opening lines in a plane substantially parallel to a transverse axis of the catheter, and filtering material movable from a collapsed position to an expanded position in response to movement of the flexible member.
2. The device of claim 1, wherein the flexible member is contained within the catheter in the first position so the cross sectional dimension of the catheter at a portion containing the flexible member does not exceed other cross-sectional dimensions of the catheter.
3. The device of claim 2, wherein the catheter has an opening in a sidewall through which the flexible member extends when moved to the looped position.
4. The device of claim 1, wherein the flexible member loops in a plane perpendicular to the longitudinal axis of the catheter.
5. The device of claim 1, further comprising a second loop spaced from the first loop and movable from a first retracted position to a second looped position extending laterally with respect to the catheter.
6. The device of claim 1, wherein in the looped position, two radially spaced loops are formed.
7. The device of claim 6, wherein the loops extend in opposite directions with respect to the catheter so in the looped position the loops are approximately 180 degrees apart.
8. The device of claim 6, wherein the loops are axially offset.

9. The device of claim 5, wherein the first and second loops are axially offset.
10. The device of claim 1, further comprising an actuating member movable from a first position to a second position to move the flexible member into the looped position.
11. The device of claim 1, wherein the filtering material automatically moves back from the expanded position to the collapsed position upon movement of the actuating member back to the first position.
12. A distal protection device comprising a catheter having an opening in a sidewall, a flexible wire positioned within the catheter and movable from a first position having a lower profile for insertion of the catheter to a second position extending laterally from the catheter, in the second position the wire forming a loop extending laterally such that a first end of the wire extends in a proximal direction and a second end of the wire extends in a distal direction with the loop therebetween having an opening extending in a proximal to distal direction, and filtering material disposed over at least a portion of the wire and movable from a collapsed position to an expanded position in response to movement of the wire.
13. The device of claim 12, further comprising an actuating member for moving the wire into the second position.
14. The device of claim 12, wherein the wire forms a second loop in the second position.
15. A distal protection device comprising a catheter, a flexible member positioned and movable from a first position to a second looped position extending laterally with respect to the catheter, such that in the second looped position a loop opening is formed lying in a plane that is non-aligned with a longitudinal axis of the catheter, the flexible member being movable between the first and second positions by user control, and filter material movable from a collapsed position to an expanded position in response to movement of the flexible member, wherein the filter material automatically moves from the expanded position to the collapsed position upon movement of the flexible member back to the first position.

16 The device of claim 15, wherein the catheter has an opening in a sidewall through which the flexible member extends when moved to the second looped position.

17. A distal protection device comprising of an outer tube, an inner core, a first inner filter having a series of openings of a first dimension and a second outer filter having a series of openings of a second dimension smaller than the first dimension, at least a portion of the outer filter positioned external of at least a portion of the inner filter.

18. The device of claim 17, further comprising a ring positioned on a proximal end of the outer filter.